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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 20040916

Application Number: 09/350,875

Filing Date: July 9, 1999

Appellant(s): Walker et al.

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GROUP 3600

Magdalena M. Fincham
(Reg. No. 46,085)
For Appellant

EXAMINER'S ANSWER

This examiner's answer has been prepared in response to appellant's brief on appeal filed June 9, 2004 (Paper No. 20040609).

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(Assignee of record, *Walker Digital, LLC.*)

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. (None.)

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(Claims 1-15, 32, and 57-71 pending, rejected, and appealed.)

(Claims 16-31 and 33-56 cancelled.)

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(No amendment after final has been filed.)

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct:

- I. Whether or not claims 1-15, 32, and 57-71 are unpatentable under 35 U.S.C. 101 for being directed to non-statutory subject matter.
- II. Whether or not claims 1-15, 32, and 57-71 are unpatentable under 35 U.S.C. 102 for being anticipated by the admitted prior art.
- III. Whether or not claims 1-15, 32, and 57-71 are unpatentable under 35 U.S.C. 102(b) for being anticipated by *Dlugos* (US 5,444,630).
- IV. Whether or not claims 1-15, 32, and 57-71 are unpatentable under 35 U.S.C. 102(b) for being anticipated by *Schultz et al.* (US 5,056,019).

(7) Grouping of Claims

Appellant's brief includes a statement that claims 1-15, 32, and 57-71 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8). Therefore, the claims will be addressed in the following three groups, as suggested by appellant:

Group I : Claims 1-4, 6-15, 32, 57-59, 61-69, and 71 stand or fall together.

Group II : Claims 5 and 60 stand or fall together.

Group III : Claim 70 stands or falls by itself.

(8) *ClaimsAppealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

The prior art of record relied upon in the rejection of claims under appeal is as follows:

5,444,630	Dlugos	8/1995
5,056,019	Schultz et al.	10/1991

(10) *Grounds of Rejection*

I. Claims 1-15, 32, and 57-71 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-15, 32, and 57-71 are drawn to a method of producing a disembodied data structure. It has been held that *such claims are considered to comprise non-statutory subject matter, for merely manipulating an abstract idea without producing any “useful, concrete, and tangible result*¹.

II. Claims 1-15, 32, and 57-71, as best understood, in light of any rejections made under 35 U.S.C. 101, hereinabove, are rejected under 35 U.S.C. 102 as being clearly anticipated by the admitted prior art, as described in the specification and drawings. In making this rejection, note that the various store embodiments recited (store, website, catalog, etc.) and so forth,

¹ *In re Wamerdam*, 33 F.3d 1354; 31 USPQ2d 1754 (Fed. Cir. 1994).

have been deemed merely “for use” applications of the claimed “method of calculating a purchase total for a transaction,” hence, afforded little patentable weight.

III. Claims 1-15, 32, and 57-71, as best understood, in light of any rejections made under 35 U.S.C. 101, hereinabove, are rejected under 35 U.S.C. 102(b) as being clearly anticipated by *Dlugos* (U.S. 5,444,630). In making this rejection, note that the various store embodiments recited (store, website, catalog, etc.) and so forth, have been deemed merely “for use” applications of the claimed “method of calculating a purchase total for a transaction,” hence, afforded little patentable weight.

IV. Claims 1-15, 32, and 57-71, as best understood, in light of any rejections made under 35 U.S.C. 101, hereinabove, are rejected under 35 U.S.C. 102(b) as being clearly anticipated by *Schultz et al.* (U.S. 5,056,019). In making this rejection, note that the various store embodiments recited (store, website, catalog, etc.) and so forth, have been deemed merely “for use” applications of the claimed “method of calculating a purchase total for a transaction,” hence, afforded little patentable weight.

(II) Response to Argument**I. Claims 1, 5, and 70 are Directed to Non-Statutory Subject Matter (Issue I, Groups I-III).**

Statutory subject matter requires two things: (1) it must be in the “*useful arts*²,” which is equivalent to the modern “industrial” or “technological arts,” defined by Congress in the four categories of “process, machine, manufacture, or composition of matter” in 35 U.S.C. § 101; and, if it is, (2) it must not fall within one of the exceptions for “*laws of nature, physical phenomena, and abstract ideas.*” Under the most recent Federal Circuit cases, transformation of data by a machine (e.g., a computer) is statutory subject matter provided the *claims recite* a “practical application, i.e., ‘*a useful, concrete, and tangible result.*’”³

The method of claims 1, 5, and 70 produces no tangible result, as it does not require displaying or physically outputting any result of the calculations it performs. Therefore, it has no tangible effect on the world. It *does* nothing. If appellant’s method were performed on a computer, and then another method were performed on the same computer, and the other method was simply to generate an endless string of useless random numbers, there would be no perceptible or discernable difference to any observer of the experiment. Therefore, appellant’s claimed method utterly fails to effect any *tangible* result. As claims 1, 5, and 70 do not *recite* any steps that effect any *tangible* result, the claims are non-statutory.

² *U.S. Const.*, art. I, § 8, cl. 8.

³ *State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368; 1373; 47 USPQ2d 1596, 1600-01 (Fed. Cir. 1998).

Furthermore, claims 1, 5, and 70 do not even expressly or implicitly *require* performance by a machine. Though appellant's invention, *as disclosed* in the specification, is characterized as being a "point of sale system or other computer system" (e.g., abstract, line 2), appellant's invention, *as claimed* in claims 1, 5, and 70, is far broader, as claims 1, 5, and 70 *require* no computer at all, reading merely on a purely mental process.

Structure will not be read into the claims for the purposes of a statutory subject matter analysis even though the method steps are disclosed as being *capable* of being performed by a machine, since it is well settled that *during patent examination the pending claims must be interpreted as broadly as their terms reasonably allow*⁴. Moreover, *claims which are broad enough to read on statutory subject matter and on nonstatutory subject matter are considered nonstatutory*⁵. Thus, even if claims 1, 5, and 70 were statutory subject matter *if* performed by a machine, that fact would be insufficient to render the claimed subject matter statutory, since no machine would be *required*.

For non-machine-implemented process claims such as claims 1, 5, and 70, there are three possible tests for statutory subject matter: (1) the definition of a "*process*" under 35 U.S.C. § 101 as *requiring a physical transformation of physical subject matter, tangible or intangible, to a different state or thing*⁶; (2) the "*abstract idea*" exception (i.e., *that the claim*

⁴ *In re Zletz*, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).

⁵ *In re Lintner*, 173 USPQ 560, 562 (CCPA 1972).

⁶ *In re Schrader*, 22 F.3d 290, 295; 30 USPQ2d 1455, 1459 (Fed. Cir. 1994).

*is not merely drawn to an abstract idea*⁷); and/or (3) the test of whether the claim recites any “practical application, i.e., ‘a useful, concrete, and tangible result’”⁸ under *State Street*, somehow adapted and applied to a non-machine-implemented method, since the test was stated in the context of transformation of data by a machine or a machine-implemented process.

Regarding the first of these three tests, the definition of a process, claims 1, 5, and 70 recite steps for calculating a price and do not transform any physical subject matter, tangible (matter) or intangible (energy), into a different state or thing and, therefore, do not fall within the definition of a statutory “process.” The claimed steps can be performed manually by a human. Although a statutory “process” under § 101 does not *have* to be performed by a machine, there *must* be some transformation of physical subject matter from one state to another (e.g., a step of “mixing” two chemicals transforms two separate chemicals into a manufacture or a composition of matter, regardless of whether it is performed by a human or a machine). Here there is no transformation of physical subject matter. Thus, claims 1, 5, and 70 are directed to nonstatutory subject matter as not meeting the definition of a “process” under § 101.

Regarding the second test, the abstract idea exception, *an idea of itself is not patentable, but a new device by which it may be made practically useful is*⁹. Abstract

⁷ *Diamond v. Diehr*, 450 U.S. 175, 185; 209 USPQ 1, 7 (1981).

⁸ *State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368; 1373; 47 USPQ2d 1596, 1600-01 (Fed. Cir. 1998).

⁹ *Rubber-Tip Pencil Co. v. Howard*, 87 U.S. 498, 507 (1874).

intellectual concepts are not patentable as they are the basic tools of scientific and technological work, but a “practical application” of the concept to produce a “useful” result is patentable. The “abstract idea” exception refers to disembodied plans, schemes, or theoretical methods. An “abstract idea” is “embodied” or a “practical application” or “concrete” when it is utilized in an invention that is a “process, machine, manufacture, or composition of matter” under § 101, and is “useful” when it has utility. Where the claim covers any and every possible way that the steps may be performed, this is more likely to be a claim to the “abstract idea” itself, rather than a practical application of the idea. For example, in discussing the mathematical algorithm in *Gottschalk v. Benson*¹⁰, the Supreme Court discussed the cases holding that a principle, in the abstract, cannot be patented and then stated:

Here the “process” claim is so abstract and sweeping as to cover both known and unknown uses of the BCD to pure binary conversion. The end use may ... be performed through any existing machinery or future-devised machinery or without any apparatus.

The fact that a claimed method is not *tied* to a machine, even if the method *could* be performed by a machine, and that it *does not recite* a transformation of physical subject matter to a different state or thing, is an indication that the method is a disembodied “*abstract idea*” and is *not* a practical application, as broadly (i.e., not requiring a machine) claimed.

Claims 1, 5, and 70 describe the plan or algorithm for pricing a sale of a product or products. The method, as claimed, is considered an “*abstract idea*” because no concrete and tangible means for accomplishing the plan is claimed. The method, as claimed, covers any and

¹⁰ *Gottschalk v. Benson*, 409 U.S. 63, 68; 175 USPQ 673, 675 (1972).

every possible way of implementing the plan, which indicates that it is directed to the “abstract idea” or concept itself, rather than to a practical application of the idea. Even the mere presence of a physical step cannot transform an unpatentable principle into a patentable “process.” *A mathematical formula as such is not accorded the protection of our patent laws, and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment. Similarly, insignificant post-solution activity will not transform an unpatentable principle into a patentable process*¹¹ (citations omitted). Thus, claims 1, 5, and 70 are directed to nonstatutory subject matter under the “*abstract idea*” exception.

Finally, regarding the third of the three tests, the *State Street* test of a “practical application, i.e., ‘a useful, concrete, and tangible result,’” was announced in the context of transformation of data by a machine. Thus, it is not completely clear that the test even applies in the present situation. Machines and machine-implemented processes, have generally been considered statutory subject matter, except in the special case where mathematical algorithms were involved. A machine-implemented claim starts out with a presumption of being statutory subject matter. *State Street* simplifies analysis of machine-implemented claims. It appears that all that is necessary for a machine claim or a machine-implemented process claim to be statutory subject matter is that the data that is transformed is representative of or constitutes physical activity or objects, so that the result has some practical utility. With a

¹¹ *Diamond v. Diehr*, 450 U.S. 175, 191-92; 209 USPQ 1, 10 (1981).

non-machine-implemented method, no implied transformation by a machine can be relied on to make the method “useful” or “concrete and tangible.”

To the extent that the *State Street* test applies to non-machine-implemented process claims, the test is interpreted as a restatement of existing legal principles. The terms “concrete” and “tangible” are interpreted to mean that the abstract idea or principle has been applied to subject matter that falls within one of the categories of inventions of § 101, either physical structure (machines, manufactures, or compositions of matter) or steps that transform physical subject matter to a different state or thing (a process). The phrase “concrete and tangible” was not intended to mean “anything definite and requiring physical action” without regard to the nature of the subject matter of § 101. The term “useful” is interpreted to mean that the subject matter within one of the § 101 categories satisfies the utility requirement. A “practical application” requires both that the claimed subject matter be within a statutory category (embodied in something concrete and tangible) and have utility (be useful). Thus, a claim to a computer or a computer-implemented process would normally be statutory subject matter, because it transforms electrical signals inside of the computer and is “concrete and tangible,” but it may fail to satisfy the “utility” requirement if it is merely a mathematical algorithm which transforms data not corresponding to something in the real world.

Conversely, a claim to a non-machine-implemented process may have “utility” to society, but the subject matter may not fall within the “useful arts” (“technological arts”) of § 101 so as to be “concrete and tangible” if it does not transform physical subject matter. As the claimed

subject matter of claims 1, 5, and 70 does not fall within the definition of a “process” under § 101 and is merely an “abstract idea,” it is therefore not a “practical application” because it does not produce a “concrete and tangible result.” The *State Street* test requires that subject matter be “useful” and “concrete” and “tangible.” While the claimed subject matter may be “useful” because it has some utility to society, this is not enough. Therefore, claims 1, 5, and 70 are directed to nonstatutory subject matter because they do not recite a “practical application” or produce a “concrete and tangible result” under *State Street*.

II. Claims 1, 5, and 70 are Anticipated by the Admitted Prior Art (*Issue II, Groups I-III*).

Appellant’s invention, *as disclosed* in the specification (see, in particular, the abstract, the background of the invention, and the summary of the invention), is characterized as being a “point of sale system or other computer system” (e.g., abstract, line 2). However, appellant’s invention, *as claimed* in claims 1, 5, and 70, is far broader, as claims 1, 5, and 70 *require* no computer of any kind, reading merely on a purely mental process.

Appellant’s disclosure represents the inventive step achieved by appellant to be producing the combination of existing, known methods of calculating discounts and purchase totals for known sales channels (e.g., retail stores, websites, etc.) with a point-of-sale terminal or other computer (i.e., computerizing the known method). However, claims 1, 5, and 70 *require no computer of any kind*. Therefore, the claims read on the underlying, manual method of performing the calculations, which appellant admits to be conventional/known.

While it is true that absence of any claimed element from a reference negates anticipation, an anticipatory reference can *disclose the claimed subject matter either expressly or inherently*¹². A reference which is silent about a claimed invention's features is inherently anticipatory if the missing feature is necessarily present in that which is described in the reference¹³. Moreover, a reference anticipates a claim if it discloses the claimed invention such that a skilled artisan could take its teachings in combination with his own knowledge of the particular art and be in possession of the invention¹⁴.

Regarding the argument that the admitted prior art fails to disclose the limitation that the percentage differences between first and second prices be different for first and second products, the admitted prior art indeed discloses such a feature. As cited in appellant's previous response to the non-final rejection, the prior art systems include those that, "offer a discount on a few selected products" (Paper No. 17, p. 13, lines 6-7). Thus, in the prior art, the percentage difference between first and second prices for a first, discounted product, would be non-zero, and the percentage difference between first and second prices for a second, non-discounted product, would be zero. As zero percent and any non-zero percent comprise different percentages, the prior art indeed includes percentage differences between first and second prices that are different for first and second products.

¹² *Constant v. Advanced Microwave Devices, Inc.*, 7 USPQ2d 1057 (Fed. Cir. 1988).

¹³ *In re Robertson*, 49 USPQ2d 1999 (Fed. Cir. 1999), *In re Oelrich*, 212 USPQ 323 (CCPA 1981).

¹⁴ *In re Graves*, 36 USPQ2d 1697 (Fed. Cir. 1995); *In re Sasse*, 207 USPQ 107 (CCPA 1980); *In re Samour*, 197 USPQ 1 (CCPA 1978).

III. Claims 1, 5, and 70 are Anticipated by Dlugos (Issue III, Groups I-III).

While it is true that absence of any claimed element from a reference negates anticipation, an anticipatory reference can *disclose the claimed subject matter either expressly or inherently*¹⁵. A reference which is silent about a claimed invention's features is inherently anticipatory if the missing feature is necessarily present in that which is described in the reference¹⁶. Moreover, a reference anticipates a claim if it discloses the claimed invention such that a skilled artisan could take its teachings in combination with his own knowledge of the particular art and be in possession of the invention¹⁷.

Furthermore, during patent examination the pending claims must be interpreted as broadly as their terms reasonably allow¹⁸. Moreover, although claims are interpreted in light of the specification, limitations from the specification are not read into the claims¹⁹; and, the identity required for anticipation is between the claimed subject matter and the subject matter disclosed by the reference; identity does not require the reference to disclose the same subject matter as described in the specification²⁰.

¹⁵ *Constant v. Advanced Microwave Devices, Inc.*, 7 USPQ2d 1057 (Fed. Cir. 1988).

¹⁶ *In re Robertson*, 49 USPQ2d 1999 (Fed. Cir. 1999), *In re Oelrich*, 212 USPQ 323 (CCPA 1981).

¹⁷ *In re Graves*, 36 USPQ2d 1697 (Fed. Cir. 1995); *In re Sasse*, 207 USPQ 107 (CCPA 1980); *In re Samour*, 197 USPQ 1 (CCPA 1978).

¹⁸ *In re Zletz*, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).

¹⁹ *In re Van Geuns*, 26 USPQ2d 1057 (Fed. Cir. 1993).

²⁰ *Kalman v. Kimberly Clark Corp.*, 218 USPQ 781 (Fed. Cir. 1983).

Regarding the argument that the Dlugos reference fails to disclose the limitation that the percentage differences between first and second prices be different for first and second products, the Dlugos reference indeed discloses such a feature. See, for example, column 4, lines 25-27. Additionally, Dlugos discloses that the rates and discounts are different for each package, depending on the carrier a user selects, as well as the locality to which the user is shipping each particular package.

IV. Claims 1, 5, and 70 are Anticipated by Schultz et al. (Issue IV, Groups I-III).

While it is true that absence of any claimed element from a reference negates anticipation, an anticipatory reference can *disclose the claimed subject matter either expressly or inherently*²¹. *A reference which is silent about a claimed invention's features is inherently anticipatory if the missing feature is necessarily present in that which is described in the reference*²². Moreover, *a reference anticipates a claim if it discloses the claimed invention such that a skilled artisan could take its teachings in combination with his own knowledge of the particular art and be in possession of the invention*²³.

²¹ *Constant v. Advanced Microwave Devices, Inc.*, 7 USPQ2d 1057 (Fed. Cir. 1988).

²² *In re Robertson*, 49 USPQ2d 1999 (Fed. Cir. 1999), *In re Oelrich*, 212 USPQ 323 (CCPA 1981).

²³ *In re Graves*, 36 USPQ2d 1697 (Fed. Cir. 1995); *In re Sasse*, 207 USPQ 107 (CCPA 1980); *In re Samour*, 197 USPQ 1 (CCPA 1978).

Furthermore, *during patent examination the pending claims must be interpreted as broadly as their terms reasonably allow*²⁴. Moreover, *although claims are interpreted in light of the specification, limitations from the specification are not read into the claims*²⁵; and, *the identity required for anticipation is between the claimed subject matter and the subject matter disclosed by the reference; identity does not require the reference to disclose the same subject matter as described in the specification*²⁶.

Regarding the argument that the Schultz reference fails to disclose “calculating an initial purchase total for a transaction based on first prices of products and then calculating a second purchase total based on second prices of products if the first purchase total is at least equal to a predetermined threshold,” the claimed features are considered inherent in the method of Schultz.

As an example, say the marked price of a first product is \$100 and a rebate is offered of \$5, and say the marked price of a second product is \$10 and a rebate is offered of \$1. Now, obviously, one has to buy the products to claim the rebates. So, the threshold total to get the reduced prices for the two products would be \$110, the first price for the first product would be \$100, the second price for the first product would be \$95, the first price for the second product would be \$10, the second price for the second product would be \$9, and the

²⁴ *In re Zletz*, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).

²⁵ *In re Van Geuns*, 26 USPQ2d 1057 (Fed. Cir. 1993).

²⁶ *Kalman v. Kimberly Clark Corp.*, 218 USPQ 781 (Fed. Cir. 1983).

first purchase total would be \$110. As, the first purchase total would be at least equal to the threshold purchase total of \$110, discounts would apply, thus the second purchase total would become \$104, the discount percentage on the first product being 5% and the different discount percentage on the second product being 10%.

(12) Conclusion

Appellant's claimed invention is directed to nonstatutory subject matter. Any amendment of sufficient substance to overcome the rejection of the claims as directed to non-statutory subject matter would likely succeed in overcoming the prior art rejection of the claims as anticipated by the admitted prior art as well, since that particular prior art rejection was predicated on the overly broad scope of the claims (i.e., failing to require what was disclosed as the inventive step--computerizing the conventional manual method).

Notably, many of the arguments provided by appellant in the very lengthy appeal brief are extraneous/spurious arguments that have no actual bearing on the merits of appellant's case. For example, "advantages of the invention" and "change in policy." These arguments fail to point out any supposed or alleged error in the actual rejections of these claims, and, therefore, should be deemed irrelevant and, as such, disregarded.

For all of the reasons set forth hereinabove, it is believed that the rejections of claims 1-15, 32, and 57-71 as unpatentable under 35 U.S.C. 101 and 35 U.S.C. 102 are proper and should be sustained.

For all of the above reasons, it is believed that the rejection should be sustained.

Respectfully submitted,

Date: September 16, 2004

Gerald J. O'Connor
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9/20/04

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